

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
26 May 2005 (26.05.2005)

PCT

(10) International Publication Number
WO 2005/046454 A3

(51) International Patent Classification⁷: **A61K 53/16**,
35/14, 39/02, 38/00

(21) International Application Number:
PCT/US2004/037763

(22) International Filing Date:
12 November 2004 (12.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/519,286 12 November 2003 (12.11.2003) US

(71) Applicant (for all designated States except US):
**TRUSTEES OF THE UNIVERSITY OF PENN-
SYLVANIA** [US/US]; Suite 300, 3700 Market Street,
Philadelphia, PA 19104 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BUCKI, Robert**
[US/US]; 1420 Locust Street, Apt. 7C, Philadelphia, PA
19102 (US). **CHABY, Richard. JANMEY, Paul, A.**
[US/US]; 110 Idlewild Lane, Media, PA 19063 (US).
STOSSEL, Thomas, P.

(74) Agent: **MCCONATHY, Evelyn, H.**; Dilworth Paxson
LLP, 1735 Market Street, Philadelphia, PA 19103 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(88) Date of publication of the international search report:
3 November 2005

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: METHODS OF USING GELSOLIN TO TREAT OR PREVENT BACTERIAL SEPSIS

(57) Abstract: Provided are methods of using gelsolin and active fragments thereof to neutralize, treat or prevent the pathogenic effects of lipopolysaccharide (LPS) endotoxins released from gram-negative bacteria, including massive activation of inflammatory response in a patient and the resulting lethal septic shock. The provided gelsolin binds LPS from various bacteria with high affinity, decreasing circulating LPS and neutralizes its deleterious biological effects. Consequently, the provided gelsolin replacement therapy offers a method for the prevention of LPS-induced mortality in the patient.

WO 2005/046454 A3